

Battery System

HB2 Series



Overview

The high-voltage battery system includes a battery unit ESS-HB2@A-EU and a HV Control Box ESA-CF-B. It can be used in conjunction with energy storage inverters or photovoltaic energy storage integrated machines for storing and releasing electrical energy.

Features

- Utilizes lithium iron phosphate batteries, providing high safety and long lifespan.
- Equipped with a self-developed battery management system with three level protective functions like over-discharge, overcharge, overcurrent, and temperature protection.
- Employs high-precision algorithms for SOC (State of Charge) and SOH (State of Health) estimation, ensuring more accurate calculations.
- Modular design, supports 2 to 8 expansions, adaptive control strategies.
- Industrial-grade wide temperature range to withstand high and low temperature environments.
- Automotive-grade anti-interference design to withstand strong and complex electromagnetic environments.
- IP65 protection rating makes it ready for both indoor and outdoor use.

- Boasts an ultra-thin design, making it aesthetically pleasing and seamlessly integrated with the wall, thus saving space.
- Integrated quick plug-in design reduces on-site wiring.
- Lightweight single module, easy to transport, can be installed by a single person.
- Multiple safety certifications: IEC62619, IEC62477, IEC61000, etc.
- Status display with user manual allows for efficient troubleshooting and maintenance.
- Abundant and comprehensive fault diagnosis and protection functions provide timely protection and accurate troubleshooting.

Specifications

Model	Description
Battery Unit Model	ESS-HB2@A-EU
HV Control Box Model	ESA-CF-B
Electrical	Description
Cell Type	LFP(LiFePO4)
Rated Energy	2.56kWh
Usable Energy	2.30kWh
Rated Capacity	50Ah
Rated Voltage	51.2V
Voltage Range	44.8-57.6V
Depth of Discharge (DOD)	90%
Max Charge Current	25A
Max Discharge Current	50A
Rated Power	2.5kW
Cycle Life	≥6000 (25±2°C, 0.5C/0.5C, 70%EOL)
Communication	CAN
Basic parameters	Description
Battery Unit Dimensions	580(W)*180(D)*265(H)mm
Battery Unit Weight	30.9kg
HV Control Box Dimensions	580(W)*180(D)*265(H)mm
HV Control Box Weight	9.6kg
Cooling	natural convection
Certificates	IEC62619/IEC62477/IEC61000/UN38.3 etc.
Ingress Protection	IP65
Installation Style	Floor
Operating environment	Description
Operating temperature	Charging: 0~55°C Discharging: -20~55°C
Storage Temperature	-20~45°C

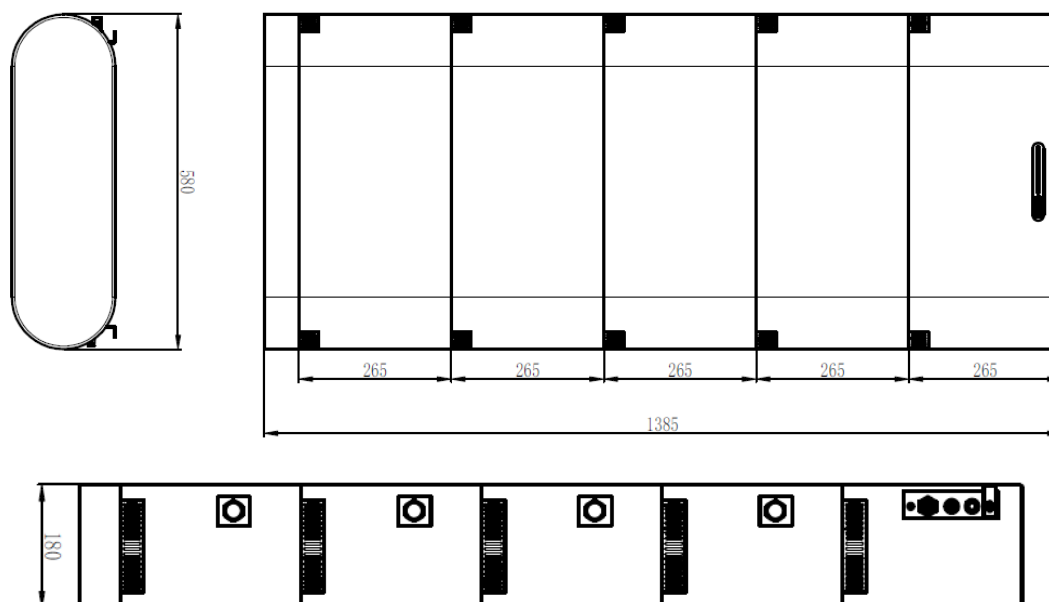
Operating Humidity	5%~95%, RH (no condensing)
Altitude	<4000m(>2000m Derating)

Ordering Information

Model	Qty	Remarks
ESS-HB2@A-EU	1	Battery System (Battery unit, LiFePO4, 2.56kWh, 50Ah, 51.2V, EU)
ESA-CF-B	1	Battery System (HV control box, HV base)

Dimensions

Dimensions: 580(W)*180(D)*265(H)mm



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Product specifications and availability are subject to change without notice.